CLAIMS

What is claimed is:

1.   An information handling system having a multi-host virtual bridge input-output switch, said system comprising:

a plurality of server modules, each of said plurality of server modules having at least one central processing unit (CPU), memory and at least one server input-output (I/O) port;

a plurality of input-output (I/O) modules, each of said plurality of input-output modules having a module I/O port; and

at least one input-output (I/O) switch, said at least one I/O switch coupled to each of the at least one server I/O ports and to each of the module I/O ports, wherein said at least one I/O switch couples selected ones of the at least one server I/O ports to selected ones of the module I/O ports.

2.   The information handling system according to claim 1, further comprising a bridge for coupling the CPU to the memory and to the at least one server I/O port.

3.   The information handling system according to claim 1, further comprising at least one native input-output (I/O) device in at least one of said plurality of server modules.

4.   The information handling system according to claim 3, wherein the at least one native I/O device is selected from the group consisting of USB, serial, keyboard, video and mouse.

1   5.   The information handling system according to claim 1, further comprising an

2   Ethernet controller in at least one of said plurality of server modules.

1   6.   The information handling system according to claim 1, wherein the at least one

2   server I/O port is a serial port.

1   7.   The information handling system according to claim 1, wherein the module I/O

2   port is a serial port.

1   8.   The information handling system according to claim 1, wherein the at least one

2   server I/O port is a serial PCI I/O port.

1   9.   The information handling system according to claim 1, wherein the module I/O

2   port is a serial PCI I/O port.

1   10.   The information handling system according to claim 1, where said at least one I/O

2   switch comprises:

3   a plurality of input buffers;

4   a plurality of output buffers;

5   a plurality of multiplexers, wherein said plurality of input buffers and said

6   plurality of output buffers are coupled to said plurality of multiplexers; and

7   control logic for controlling said plurality of multiplexers, wherein said plurality

8   of multiplexers determine which ones of said plurality of input buffers are coupled to

9   which ones of said plurality of output buffers.

1   11.   The information handling system according to claim 10, wherein a one of said

2   input buffers and a one of said output buffers are coupled to each server I/O port and each

3   module I/O port.

1   12.   The information handling system according to claim 10, further comprising a

2   mapping table coupled to said control logic, said mapping table storing which ones of said

3   plurality of input buffers are coupled to which ones of said plurality of output buffers.

1   13.   The information handling system according to claim 12, further comprising

2   initialization logic for initializing said control logic and said mapping table.

1   14.   The information handling system according to claim 13, wherein said

2   initialization logic is external from said at least one I/O switch.

1   15.   The information handling system according to claim 14, wherein said

2   initialization logic is coupled to said control logic with a low pin count interface.

1   16.   The information handling system according to claim 15, wherein the low pin

2   count interface is selected from the group consisting of I^2C and JTAG.

1   17.   The information handling system according to claim 1, wherein said at least one

2   I/O switch is accessed through a user interface.

1   18.   An input-output (I/O) switch for an information handling system, comprising:

2   a plurality of server I/O ports, each of said plurality of server I/O ports having an

3   input buffer and an output buffer;

4   a plurality of module I/O ports, each of said plurality of module I/O ports having

5   an input buffer and an output buffer;

6   a plurality of multiplexers, wherein the input buffers and the output buffers are

7   coupled to said plurality of multiplexers; and

8   control logic for controlling said plurality of multiplexers, wherein said plurality

9   of multiplexers determine which of the input buffers are coupled to which of the output

10   buffers.

1   19.   The I/O switch according to claim 18, further comprising a mapping table coupled

2   to said control logic, said mapping table storing which of the input buffers are coupled to which

3   of the output buffers.

1   20.   The I/O switch according to claim 18, wherein the server I/O port is a serial I/O

2   port.

1   21.   The I/O switch according to claim 18, wherein the server I/O port is a serial PCI

2   I/O port.

1   22.   The I/O switch according to claim 18, wherein the module I/O port is a serial I/O

2   port.

1   23.   The I/O switch according to claim 18, wherein the module I/O port is a serial PCI

2   I/O port.

1   24.   A method for coupling a plurality of server modules to a plurality of input-output

2   (I/O) modules in an information handling system, said method comprising the steps of:

3   providing a plurality of server modules, each of the plurality of server modules

4   having at least one central processing unit (CPU), memory and at least one server input-

5   output (I/O) port;

6   providing a plurality of input-output (I/O) modules, each of the plurality of input-

7   output modules having a module I/O port; and

8   coupling the at least one server I/O ports to respective ones of the module I/O

9   ports.

1   25.   The method according to claim 24, further comprising the step of mapping which

2   of the at least one server I/O ports are coupled to which of the module I/O ports.

1   26.   The method according to claim 24, further comprising the step of initializing

2   which of the at least one server I/O ports are coupled to which of the module I/O ports.

1   27.   The method according to claim 26, wherein the step of initializing is performed

2   though a user interface.